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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,871	08/18/2005	Thomas Leucht	GAS-009	8789
32628	7590	05/18/2006		
KANESAKA BERNER AND PARTNERS LLP SUITE 300, 1700 DIAGONAL RD ALEXANDRIA, VA 22314-2848				
			EXAMINER	
			GOFMAN, ANNA	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 05/18/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/538,871	<b>Applicant(s)</b> LEUCHT ET AL.	
	<b>Examiner</b> Anna Gofman	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 16-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 9 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/14/05</u> | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

1. Applicant's election without traverse of claims 1-16 in the reply filed on April 24, 2006 is acknowledged.

***Specification***

2. The disclosure is objected to because of the following informalities: the specification uses the terms "polyacrylat" "polyacrylnitril". The correct spelling should be as follows: polyacrylate, polyurethane and polyacrylonitrile. Appropriate correction is required.

***Claim Objections***

3. Claim 9 is objected to because of the following informalities: Applicants recite "polyacrylat, polyure-thane, polyacrylnitril..." in line 2 of claim 9. The correct spelling should be as follows: polyacrylate, polyurethane and polyacrylonitrile. Appropriate correction is required.
4. Claim 15 is objected to because of the following informalities: Applicants recite "bactericidin" on line 2. The correct spelling should be "bactericide". Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Regarding claims 5-6, the phrases "preferably" on line 2 and "particularly preferably" on line 3 in claim 5, and the phrase "preferably" on line 2 in claim 6 render the claims indefinite because it is unclear whether the limitations following the phrases are part of the claimed invention. See MPEP § 2173.05(d).

7. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant recites the limitation, "wherein the polymer material is present in the form of fibers or woven cloth, knitted fabric made thereof." It is unclear whether Applicants intend the fabric to be woven or knitted.

8. Claim 8 recites the limitation, "intumescent body as defined in claim 1, wherein the intumescent system is a halogen-free and/or heavy metal-free system." The term "and/or" renders the claim indefinite since it is unclear which group or species Applicant is claiming.

9. Claim 15 recites the limitation, "intumescent body as defined in claim 1, wherein, in addition... an insecticide and/or a bactericide are include." The term "and/or" renders the claim indefinite since it is unclear which group or species Applicant is claiming.

### ***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 4-10, 12-13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nozaki et al. (US 6,248,820).

Nozaki et al. teach a flame retardant for flameproof mesh sheets which does not generate harmful halogen gas. The flame retardant for mesh sheets comprises red phosphorus, an ammonium polyphosphate compound in an amount of 10 to 70 parts by weight based on 100 parts by weight of an aqueous dispersion, and a resin solid content (abstract). Ammonium polyphosphate acts as the flame retardant and would necessarily be an acid donor. The flame retardant can be used to impregnate flameproof mesh sheets woven out of coated yarn (col.3 lines 6-8). The polymer can be a polyurethane having the main structure of a polyester (col.4 line 23). The red phosphorus promotes the carbonization of polyurethane (col.5 lines 60-62), which necessarily acts as a carbon donor. The polyurethane aqueous dispersion is present in amounts of about 10 to 70 wt.% (col.4 lines 45-46). Inherent to polyurethane is a crystallization temperature of less than 190°C and a melting temperature in the range of 50°C to 400°C or a decomposition temperature in the range of 150°C to 500°C. Therefore, the polyurethane would necessarily have a difference between the melting temperature and the crystallization temperature in the range of 55 to 70 K.

***Claim Rejections - 35 USC § 102/103***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 2-3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nozaki et al.

Although Nozaki et al. do not explicitly teach the claimed carbon content, it is reasonable to presume that the polymer material inherently provides a share of at least 20 weight percent of the carbon. Support for said presumption is found in the use of like materials (i.e. flame retardants for mesh sheets), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. In addition, the presently claimed property would obviously have been present once the claimed product is provided.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozaki et al.

Nozaki et al. teach the use of mold preventing agents (col.7 lines 62-63), but do

not specifically teach an insecticide or bactericide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a mold preventing agent since Examiner takes Official Notice of the equivalence of insecticides or bactericides and mold preventing agents for their use in the art and the selection of these known equivalents to be used as fungicides would be within the level of ordinary skill in the art.

Further, It would have been obvious to one having ordinary skill in the art at the time the invention was made to select the desired weight percents of the fungicides through the process of routine experimentation in order to arrive at values which offered the optimum fungus or bacteria prevention in the invention of Nozaki et al.

17. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozaki et al. in view of Marx et al. (US 4,774,268).

Nozaki et al. fail to teach that the coating comprises from 0.5 to 10 weight % of an isocyanate or a melamine-formaldehyde. Marx et al. are drawn to flame resistant polyurethane compositions. Marx et al. teach that the flame retardant composition comprises from 10 to 50 weight percent of a melamine formaldehyde (col.7 lines 45-48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to add the melamine formaldehyde of Marx et al. into the coating composition of Nozaki et al. motivated to act as a crosslinking agent as well as to allow the polyurethane to soften when heated.

18. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nozaki et al. in view of Maples et al. (US 6,284,343).

Nozaki et al. do not specifically teach an agent for deaeration. Maples et al. are drawn to fire resistant carpet backing comprising a polyurethane dispersion. Maples et al. teach a composition comprising a defoamer in a range of about 0.01 to 1.0 wt.% (col.8, Table). Defoamers are known in the art as equivalents of deaerating agents. It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a defoaming agent to the polyurethane dispersion of Nozaki et al. motivated to remove oxygen and prevent the coating from foaming.

### ***Conclusion***

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In addition to the references provided by Applicant, the following documents are considered pertinent to Applicant's invention:

Pirig et al. (US 6,617,382) teach a flame-retardant coating for fiber materials but fail to teach ammonium phosphate.

Scholtz et al. (US 5,749,948) teach expandable flame-retardant coating compositions but fail to teach melamine-formaldehyde or isocyanate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Gofman whose telephone number is (571) 272-7419. The examiner can normally be reached on Mon.-Fri. 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anna Gofman  
Examiner  
Art Unit 1771

AG



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